Coastal Battlefield Reconnaissance And Analysis (COBRA)

Description

COBRA is a Marine Corps ACAT IV(T) acquisition program with increasing interest by both the Army and Navy. The purpose of the COBRA program is to provide rapid, tactical reconnaissance of the littoral area; a crucial cornerstone for execution of EMW.

The COBRA system consists of two sub-systems with a modular, open architecture design to allow for integration of emerging technologies that prove beneficial. The multispectral imaging (MSI) payload sub-system for airborne data collection is being designed to operate from a manned or Unmanned Aerial Vehicle (UAV) corporate to the Marine Air Ground Task Force (MAGTF). The operator's station sub-system will be used for training, mission planning, exploitation and tailored product dissemination. The exploitation function will incorporate Aided Target Recognition (ATR) algorithms to greatly reduce the workload of image analysts. Early prototypes have already improved the efficiency, speed and quality of intelligence dissemination by Marine Corps UAV Squadron One (VMU-1). Since COBRA will augment several missions, the intelligence products will be tailored to the user and C4 architecture available for dissemination.

C4ISR interoperability is a key concern to ensure rapid, accurate and useful data is provided when and where needed. For mission planning and exploitation COBRA will exploit the capabilities of the Tactical Exploitation System – Navy (TES-N), Tactical Exploitation Group (TEG), Topographic Production Capability (TPC) and Mine Warfare Environmental Decision Aid Library (MEDAL) systems and segments. Products will also flow to these systems as well as the Intelligence Analysis System (IAS) and Intelligence Operator's Workstation (IOW) via the Tactical Data Network (TDN).

Operational Impact

COBRA will provide the only corporate MAGTF capability to detect and geolocate minefields, obstacles and camouflaged defenses in preparation for the amphibious Ship to Objective Maneuver (STOM) phase of EMW. The information generated by this system is critical for mission planning and execution tools developed for all amphibious landing craft [i.e. AAAV, LCAC, and LCU (X)] as well as developmental minefield and obstacle breaching systems. The need for littoral mine detection capability was highlighted by several Flag Officers during the October 2001 Expeditionary Warfare Conference. The advanced technologies employed by COBRA are also well suited to enhance other missions such as Bomb Damage Assessment (BDA), Trafficability Assessment (TA), Search and Rescue (SAR) as well as high resolution mapping both inland (topography) and in water (bathymetry).

Program Status

The COBRA ORD received MROC approval on 10 April 2001. The System Design Contract was awarded on 10 August 2001.

Procurement Profile	***FY02***	***FY03***
Quantity:	0	0

Developer/Manufacturer

Prime Contractor, Development:	Northrop Grumman, Melbourne, FL
Major Subcontractors:	Arete Associates, Niceville, FL
	Science & Engineering Associates, San Diego, CA
	Wescam, Healdsburg, CA
Prime Contractor, Upgrades:	Office of Naval Research (ONR)
	Light Cycles, Phoenix, AZ
	Science & Technology International (STI) Honolulu, HI
	Veridian Systems, Ann Arbor, MI